

REMARKS/ARGUMENTS

A. Summary of the Amendments

The specification has been amended in order to correct certain minor informalities noticed by Applicant upon reviewing the application. Claims 5, 8 and 13 have been amended in order to correct certain typographical errors noticed by Applicant upon reviewing the application. Applicant respectfully submits that no new matter has been added to the patent application under the present amendment.

B. Rejections under 35 USC 103

On page 2 of the Office Action, the Examiner has rejected claims 1-6, 14, 15 and 19 under 35 USC 103(a) as being unpatentable over Christian *et al.* U.S. Patent No. 6,039,661 (hereinafter referred to as "Christian") in view of Tiitola *et al.* U.S. Patent 5,407,195¹ (hereinafter referred to as "Tiitola"):

It would have been obvious to one of ordinary skill in the art to have formed Christian's blade element of a synthetic material in the manner taught by Tiitola as well if it was desired to make a more durable blade.

The Examiner has also rejected claims 7-13 under 35 USC 103(a) as being unpatentable over Christian in view of Tiitola as applied to claim 6, and further in view of Quigley *et al.* U.S. Patent No. 6,062,996.

As set forth herein below, Applicant respectfully disagrees and submits that claims 1-15 and 19 distinguish clearly and patentably over the cited references.

The Examiner's attention is directed to the emphasized features of claim 1:

¹ In the Office Action, the Examiner rejected the claims "as being unpatentable over Christian *et al.* (Christian) in view of Tiitola" without specifying if "Tiitola" refers to Tiitola *et al.* U.S. Patent No. 5,407,195 cited in the Office Action dated April 22, 2003 or to Tiitola U.S. Patent Application 09/727,073 listed in the Supplemental Information Disclosure Statement filed by Applicant on April 16, 2003. During a conversation between the undersigned and the Examiner on March 29, 2004, the Examiner has confirmed that the rejection is based on Tiitola *et al.* U.S. Patent No. 5,407,195, *not* on Tiitola U.S. Patent Application 09/727,073.

A blade portion for a hockey stick, comprising:

- (a) a wooden shank portion having :
 - (i) a longitudinal axis;
 - (ii) inner and outer sides extending along said longitudinal axis;
 - (iii) rear and front sides between said inner and outer sides;
 - (iv) a groove on said front side, said groove extending along said longitudinal axis; and
 - (v) a lower edge extending from said rear side to said front side;
- (b) a blade element made of synthetic material, said blade element including;
 - (i) a proximal end portion, said proximal end portion having a tongue received in said groove;
 - (ii) a distal end portion remote from said proximal end portion; and
 - (iii) a lower edge extending from said front side to said distal end portion, the lower edge of said wooden shank portion being a first lower edge, the lower edge of said blade element being a second lower edge; and
- (c) **a ground contacting portion** extending from said rear side to said distal end portion, said ground contacting portion **comprising a first segment formed of said first lower edge and a second segment formed of said second lower edge.**

According to the MPEP § 706.02(j), in order for the Examiner to establish a *prima facie* case of obviousness, three criteria must be considered: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings, (2) there must be a reasonable expectation of success, and (3) the prior art references must teach or suggest all of the claim limitations.

It is respectfully submitted that the first requirement of a *prima facie* case of obviousness, namely the presence of a suggestion or motivation to modify the reference or to combine the reference teachings, has not been satisfied. Indeed, the Examiner does not indicate where in Christian or Tiitola, or in the knowledge available to one person of ordinary skill in the art, there

is a motivation or suggestion to combine Christian and Tiitola in order to modify Christian's blade element 24.

Christian specifically describes a substantially wooden replacement blade 14 having a shaft (shank) portion 16 comprising a wooden shaftstock 26 having on its sides reinforcement strips 39, 40 that are made of fiberglass in order to limit breakage at the point of connection with the handle 10 of the hockey stick. The object of the Christian invention is to provide a reinforced connection between the replacement blade 14 and the hockey stick handle 10 and there is therefore no need to modify the blade element 24 in order to reinforce such a connection. Indeed, the structure and material of the blade element 24 have no important impact on the strength of the connection between the replacement blade 14 and the hockey stick handle 10 since this blade element 24 is not directly connected to the hockey stick handle 10; it is rather the shaft portion 16 (the wooden shaftstock 26 with its reinforcement strips 39, 40) that is directly connected to the hockey stick handle 10.

Because Christian specifically addresses the connection problem between the replacement blade and the hockey stick handle, it is completely silent concerning the possibility of replacing the wooden blade element 24 with a blade element made of another material. Hence, there is no suggestion or motivation to replace the wooden blade element 24 of Christian with the synthetic blade section 2 of Tiitola and it would **not** have been obvious to a person skilled in the art to have formed this blade element 24 of a synthetic material.

Moreover, nowhere in Christian or Tiitola is there any remote suggestion or motivation as to connecting the synthetic blade section 2 of Tiitola using the shaft portion 16 of Christian.

Tiitola indicates that the synthetic blade section 2 can be directly affixed to the lower end portion of the handle 1 using a layer of fiber reinforced plastics material: "[t]he lower portion 3 of the handle 1 is attached to the blade section 2 by a fiber reinforced plastics material layer 4

shown as crossed hatching." (column 9, lines 15-18 and see Figure 1). Tiitola also indicates that "[...] *instead of a complete handle section 1 being integrally fixed to the blade construct, a handle heel portion 30 having a spigot member 31 may be so fixed to the blade construct* (column 12, lines 10-13 and see Figure 12). Thus, Tiitola teaches away from the use of the wooden block 25 and shaftstock 26 of Christian.

There is therefore absolutely no suggestion or motivation to combine Christian with Tiitola since Tiitola describes a connection between its blade section 2 and the handles 1, 30, which in no way corresponds to, or is compatible with, the connection between the blade element 24 and the shaft portion 16 (the wooden block 25 and shaftstock 26) of the replacement blade 14 of Christian.

In addition, in accordance with 37 CFR §1.132, a Declaration of André Michaud, a person skilled in the art of hockey stick blades, and a Declaration of Martin Pelchat, a person skilled in the art of reinforced laminates for hockey stick blades, are filed with the present response.

The facts set forth in André Michaud's declaration and in Martin Pelchat's declaration establish that Christian and Tiitola do not teach to a person of ordinary skill in the art what the Examiner opines they teach; and theses patents teach away from the Examiner's proposed combination.

Hence, Applicant respectfully submits that no *prima facie* case of obviousness rejection is established in the Office Action and that there are no grounds for an obviousness rejection of claim 1 on the basis of Christian in view of Tiitola. Claims 2-15 and 19 depend either directly or indirectly on claim 1, thus include all of the limitations of claim 1 and are therefore also patentable. It is also respectfully submitted that there are no grounds of rejection on the basis of the other references cited by the Examiner.

CONCLUSION

In view of the foregoing, Applicant is of the view that claims 1-15 and 19 are in allowable form. Favorable reconsideration is requested and early allowance of the patent application is earnestly solicited.

If the claims of the application are not considered to be in full condition for allowance, for any reason, Applicant respectfully requests the constructive assistance and suggestions of the Examiner in drafting one or more acceptable claims pursuant to MPEP 707.07(j) or in making constructive suggestions pursuant to MPEP 706.03 so that the application can be placed in allowable condition as soon as possible and without the need for further proceedings.

Enclosed is a \$950 check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: 4/23/04



John F. Hayden
Reg. No. 37,640

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Declaration of André Michaud Under 37 CFR §1.132

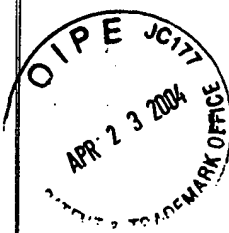
I, André Michaud, residing at 7095 Boulevard Gouin East, Apartment 1036, Montreal (Quebec), Canada, hereby declare as follows.

2. Since 1948, I have worked continually in the field of hockey equipment research and development, in particular, in the field of hockey sticks and hockey stick blades research and development. Specifically, from 1956 to 1969, I worked as an independent contractor for Sherwood Hockey during which time I was involved in the research and development of traditional wood hockey sticks and emerging composite material hockey sticks.
3. In 1970, I partly owned Canadian Hockey Sticks Manufacturing Inc. and during that time, I invented a hockey stick for which Canadian Patent No. 906,020 was granted on July 25, 1972.
4. Since 1971, I have either fully or partly owned various companies specializing in hockey equipment research and development, in particular, hockey sticks and hockey stick blades research and development.
5. I have reviewed Christian *et al.* U.S. Patent No. 6,039,661 (hereinafter referred to as "Christian") and Tiitola *et al.* U.S. Patent No. 5,407,195 (hereinafter referred to as "Tiitola").
6. Among the hockey stick blades with which I was familiar prior to the filing date of U.S. Application No. 09/998,933 (hereinafter "the '933 application") were hockey stick blades of the type described in Christian and Tiitola.
7. Neither Christian nor Tiitola explicitly discloses, teaches or implicitly suggests a ground contacting portion comprising a first segment formed of the lower edge of a wooden shank portion and a second segment formed of the lower edge of a blade element made of synthetic material as recited in claim 1 of the '933 application.

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8. Christian solely and consistently describes a substantially wooden replacement blade 14 having a blade element 24, a block 25 and a shaftstock 26 made of wood and does not teach or suggest a ground contacting portion comprising a first segment formed of the lower edge of a wooden shank portion and a second segment formed of the lower edge of a blade element made of synthetic material.
9. Tiitola solely and consistently describes a blade section 2 having a bottom edge entirely made of a synthetic material. In fact, Tiitola describes a blade section 2 having a bottom edge formed of "a wear resistant member 5 for contacting the ice surface [...], this member may take the aspect of a thermoplastic wear protection bottom piece" (see column 9, lines 24-29 and Figures 1, 2 and 8 – note that the wear resistant member 5 extends along the entire bottom edge of the blade). Tiitola also describes that the thermoplastic wear resistant member may be omitted, in which case "the bottom running or sliding edge of the blade may be formed by the excess fiber reinforced fabric layers 28 and 29 in this region of the intermediate structure." (see column 12, lines 17-21 and Figure 3). Tiitola does not therefore teach or suggest a ground contacting portion comprising a first segment formed of the lower edge of a wooden shank portion and a second segment formed of the lower edge of a blade element made of synthetic material.
10. I have reviewed the Office Action mailed on October 24, 2003 by the United States Patent and Trademark Office in connection with the '933 application, the Office Action containing the following statement:

It would have been obvious to one of ordinary skill in the art to have formed Christian's blade element of a synthetic material in the manner taught by Tiitola as well if it was desired to make a more durable blade.

11. That statement is incorrect, in view of the state of the art of hockey stick blades as of the filing date of the '933 application. One person skilled in the art would not have made that combination as of the filing date, for the following reasons.

12. One of the objects of the Christian invention is to provide a replacement blade for a hockey stick which is reinforced by reinforcement strips in recessed areas on the sides of the shaft of the blade in order to limit breakage at the point of connection with the handle of the hockey stick (see column 3, lines 33-39).
13. Christian specifically describes a substantially wooden replacement blade 14 having a shaft (shank) portion 16 comprising a wooden shaftstock 26 having on its sides reinforcement strips 39, 40 that are made of fiberglass in order to limit breakage at the point of connection with the handle 10 of the hockey stick.
14. Because Christian provides a reinforced connection between the replacement blade 14 and the hockey stick handle 10, there is therefore no need to modify the blade element 24 in order to reinforce such connection. Indeed, the structure and material of the blade element 24 have no important impact on the strength of the connection between the replacement blade 14 and the hockey stick handle 10 since this blade element 24 is not directly connected to the hockey stick handle 10; it is rather the shaft portion 16 (the wooden shaftstock 26 with its reinforcement strips 39, 40) that is directly connected to the hockey stick handle 10.
15. Christian specifically addresses the connection problem between the replacement blade and the hockey stick handle and it is completely silent concerning the possibility of replacing the wooden blade element 24 with a blade element made of another material since the blade element is completely outside of the scope of the Christian invention. In other words, Christian does not relate to the structure of the blade element 24 because it rather relates to the connection between the shaft portion 16 of the replacement blade 14 and the hockey stick handle 10.
16. Hence, there is no suggestion or motivation to replace the wooden blade element 24 of Christian with the synthetic blade section 2 of Tiitola and it would not have been obvious to a person skilled in the art to have formed this blade element 24 of a synthetic material.

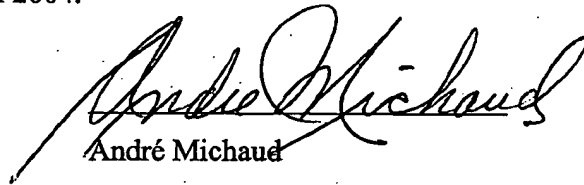
In fact, by solely and consistently describing the use of the wooden blade element 24, Christian teaches away from using a blade element made of another material.

17. Moreover, nowhere in Christian and Tiitola is there any remote suggestion or motivation as to connecting the synthetic blade section 2 of Tiitola using the shaft portion 16 of Christian.
18. Tiitola indicates that the synthetic blade section 2 can be directly affixed to the lower end portion of the handle 1 using a layer of fiber reinforced plastics material: "[t]he lower portion 3 of the handle 1 is attached to the blade section 2 by a fiber reinforced plastics material layer 4 shown as crossed hatching." (column 9, lines 15-18 and see Figure 1). Tiitola also indicates that "[...] instead of a complete handle section 1 being integrally fixed to the blade construct, a handle heel portion 30 having a spigot member 31 may be so fixed to the blade construct (column 12, lines 10-13 and see Figure 12). In that senses, Tiitola teaches away from the use of the wooden block 25 and shaftstock 26 of Christian.
19. There is therefore absolutely no suggestion or motivation to combine Christian with Tiitola since Tiitola describes a connection between its blade section 2 and the handles 1, 30 which in no way corresponds to, or is compatible with, the connection between the blade element 24 and the shaft portion 16 (wooden block 25 and shaftstock 26) of the replacement blade 14 of Christian.
20. Hence, there was no reason apparent to one person skilled in the art as of the filing date of the '933 application to combine Christian and Tiitola and arrive at a blade portion as defined in claim 1 of the '933 application.

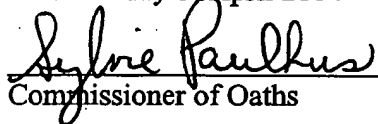
21. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

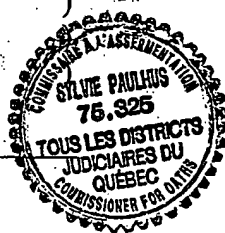
Respectfully submitted,

SIGNED AT Montreal, this 14th day of April 2004.


André Michaud

SWORN before me at Montreal
Province of Quebec, Canada
This 14th day of April 2004


Commissioner of Oaths



Declaration of Martin Pelchat Under 37 CFR §1.132

I, Martin Pelchat, residing at 9910 du Trianon Street, Deauville (Quebec), Canada, hereby declare as follows.

2. I hold a B.Sc. in Mechanical Engineering from the University of Sherbrooke, Quebec, Canada, awarded in 1995.
3. Since 1996, I have been employed by Armtex, a manufacturer and supplier of reinforced synthetic laminates that are used, in particular, as reinforced laminates for hockey sticks and hockey stick blades. Specifically, from 1996 to 2000, I worked in the research and development department of Armtex where I was involved in various projects which included research and development of reinforced laminates for hockey sticks and hockey stick blades.
4. Since 2000, I have held the position of Director of Operations of Armtex during which time I have worked in collaboration with clients of Armtex, particularly manufacturers of hockey sticks and hockey stick blades, to develop reinforced laminates tailored to the needs of the products manufactured by those clients.
5. I have reviewed Christian *et al.* U.S. Patent No. 6,039,661 (hereinafter referred to as "Christian") and Tiitola *et al.* U.S. Patent No. 5,407,195 (hereinafter referred to as "Tiitola").
6. Among the hockey stick blades with which I was familiar prior to the filing date of U.S. Application No. 09/998,933 (hereinafter "the '933 application") were hockey stick blades of the type described in Christian and Tiitola.
7. Neither Christian nor Tiitola explicitly discloses, teaches or implicitly suggests a ground contacting portion comprising a first segment formed of the lower edge of a wooden

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April 26th, 2004



shank portion and a second segment formed of the lower edge of a blade element made of synthetic material as recited in claim 1 of the '933 application.

8. Christian solely and consistently describes a substantially wooden replacement blade 14 having a blade element 24, a block 25 and a shaftstock 26 made of wood and does not teach or suggest a ground contacting portion comprising a first segment formed of the lower edge of a wooden shank portion and a second segment formed of the lower edge of a blade element made of synthetic material.
9. Tiitola solely and consistently describes a blade section 2 having a bottom edge entirely made of a synthetic material. In fact, Tiitola describes a blade section 2 having a bottom edge formed of "a wear resistant member 5 for contacting the ice surface [...], this member may take the aspect of a thermoplastic wear protection bottom piece" (see column 9, lines 24-29 and Figures 1, 2 and 8 - note that the wear resistant member 5 extends along the entire bottom edge of the blade). Tiitola also describes that the thermoplastic wear resistant member may be omitted, in which case "the bottom running or sliding edge of the blade may be formed by the excess fiber reinforced fabric layers 28 and 29 in this region of the intermediate structure." (see column 12, lines 17-21 and Figure 3). Tiitola does not therefore teach or suggest a ground contacting portion comprising a first segment formed of the lower edge of a wooden shank portion and a second segment formed of the lower edge of a blade element made of synthetic material.

10. I have reviewed the Office Action mailed on October 24, 2003 by the United States Patent and Trademark Office in connection with the '933 application, the Office Action containing the following statement:

It would have been obvious to one of ordinary skill in the art to have formed Christian's blade element of a synthetic material in the manner taught by Tiitola as well if it was desired to make a more durable blade.

[Signature]
April 16th, 2004

11. That statement is incorrect, in view of the state of the art of hockey stick blades as of the filing date of the '933 application. One person skilled in the art would **not** have made that combination as of the filing date, for the following reasons.
12. One of the objects of the Christian invention is to provide a replacement blade for a hockey stick which is reinforced by reinforcement strips in recessed areas on the sides of the shaft of the blade in order to limit breakage at the point of connection with the handle of the hockey stick (see column 3, lines 33-39).
13. Christian specifically describes a substantially wooden replacement blade 14 having a shaft (shank) portion 16 comprising a wooden shaftstock 26 having on its sides reinforcement strips 39, 40 that are made of fiberglass in order to limit breakage at the point of connection with the handle 10 of the hockey stick.
14. Because Christian provides a reinforced connection between the replacement blade 14 and the hockey stick handle 10, there is therefore no need to modify the blade element 24 in order to reinforce such connection. Indeed, the structure and material of the blade element 24 have no important impact on the strength of the connection between the replacement blade 14 and the hockey stick handle 10 since this blade element 24 is not directly connected to the hockey stick handle 10; it is rather the shaft portion 16 (the wooden shaftstock 26 with its reinforcement strips 39, 40) that is directly connected to the hockey stick handle 10.
15. Christian specifically addresses the connection problem between the replacement blade and the hockey stick handle and it is completely silent concerning the possibility of replacing the wooden blade element 24 with a blade element made of another material since the blade element is completely outside of the scope of the Christian invention. In other words, Christian does not relate to the structure of the blade element 24 because it rather relates to the connection between the shaft portion 16 of the replacement blade 14 and the hockey stick handle 10.

[Signature]
April 16th, 2004

16. Hence, there is no suggestion or motivation to replace the wooden blade element 24 of Christian with the synthetic blade section 2 f Tiitola and it would n t have been obvious to a person skilled in the art to have formed this blade element 24 of a synthetic material. In fact, by solely and consistently describing the use of the wooden blade element 24, Christian teaches away from using a blade element made of another material.
17. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Respectfully submitted,

SIGNED AT Magog, this 16th day of April 2004.


Martin Pelchat